

525,148

Rec'd PCT/PTO 16 FEB 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
4 March 2004 (04.03.2004)

PCT

(10) International Publication Number
WO 2004/018390 A1(51) International Patent Classification⁷: C07C 5/03(21) International Application Number:
PCT/US2003/026153

(22) International Filing Date: 21 August 2003 (21.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2002/6736 22 August 2002 (22.08.2002) ZA(71) Applicant (for all designated States except US):
CATALYTIC DISTILLATION TECHNOLOGIES
[US/US]; 10100 Bay Area Boulevard, Pasadena, TX
77507 (US).

(72) Inventors; and

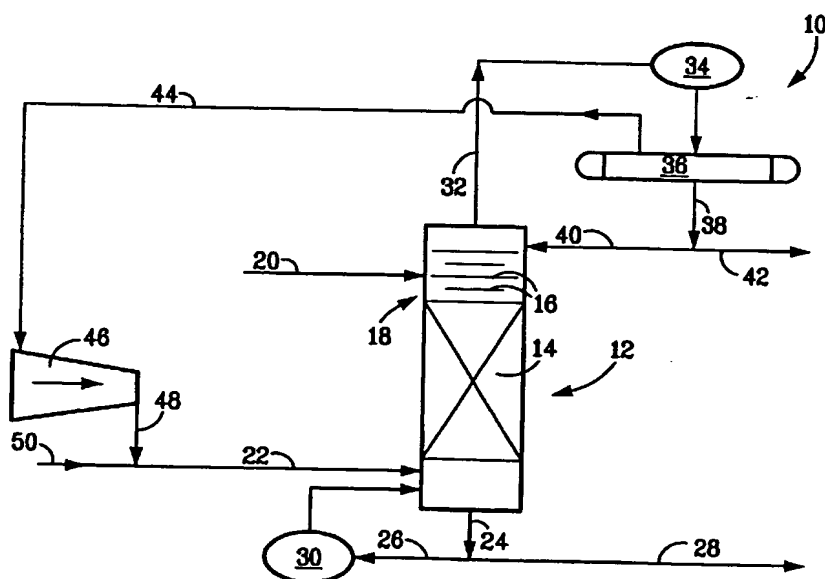
(75) Inventors/Applicants (for US only): STARK, Nicolaus,
Ladislau [NL/ZA]; Rivermews 3, Athlone Drive, Three
Rivers, Vereeniging (ZA). SWART, Josias, Sevaas, De
Kock [ZA/ZA]; 6 Pierre Avenue, Bordeaux, Randburg
(ZA).(74) Agent: JOHNSON, Kenneth, H.; P.O. Box 630708,
Houston, TX 77263 (US).(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: HYDROGENATION OF OLEFINIC FEEDSTOCKS



(57) **Abstract:** A process for bulk hydrogenation of an olefin-containing feedstock containing a plurality of different unsaturated olefinic hydrocarbon compounds, for example a feedstock containing from 60 to 100 mass% unsaturated olefinic hydrocarbon compounds, by subjecting the olefinic feedstock to bulk hydrogenation in a catalytic distillation zone containing a hydrogenation catalyst, and in the presence of hydrogen, under conditions favoring bulk hydrogenation to hydrogenate unsaturated olefinic hydrocarbon compounds present in the feedstock into their corresponding saturated compounds, and withdrawing the saturated compounds from the catalytic distillation zone.

WO 2004/018390 A1